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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q56456

Claire BESET-BATHIAS

Appln. No.: 09/429,028

Group Art Unit: 2664

Confirmation No.: 5444

Examiner: Chirag G. SHAH

Filed: October 29, 1999

For: A METHOD FOR GENERATING ATM CELLS FOR LOW BIT RATE
APPLICATIONS

REQUEST FOR RECONSIDERATION UNDER 37 C.F.R. § 1.111

MAIL STOP AMENDMENT

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

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In response to the Office Action dated June 4, 2004, reconsideration and allowance of the subject application are respectfully requested. Claims 14-24 are pending in the application. Applicant respectfully submits that the pending claims define patentable subject matter.

Claims 14 and 20-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Petersen et al. (USP 5,802,051; hereafter “Petersen”) in view of Subbiah et al. (USP 6,538,992; hereafter “Subbiah”). Claims 15-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Petersen in view of Subbiah and Depelteau et al. (USP 6404,767; hereafter “Depelteau”). Claim 19 is rejected under U.S.C. § 103(a) as being unpatentable

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over Petersen in view of Subbiah and Gritton (USP 5,940,397). Applicant respectfully traverses the prior art rejections.

In the March 22, 2004 Amendment, Applicant argued that independent claims 14, 22, 23 and 24 should be allowable over the combination of Petersen and Subbiah because these references do not disclose or suggest a method or apparatus for “scheduling transmission times for ATM cells in a way that as long as there is data available from at least one of a plurality of low bit rate connections, the transmission times are spaced according to a cell rate negotiated for a corresponding ATM connection”, as claimed. In particular, similar to the conventional method discussed on pages 1 and 2 of the present application, Subbiah teaches a method of scheduling transmission times of ATM cells based on a timer delay wherein ATM cells are sent both before expiration of the delay time (when the cell is completely filled with packets or the packets has a stringent Quality of Service (QoS) requirement) and at the expiration of the delay time thereby introducing delay variations in ATM cell spacing.

In the Office Action, the Examiner again contends that Subbiah discloses:

if a user requests CBR service as disclosed in column 7, lines 59 to column 8, lines 11, then voice packets belonging to that particular user can be placed in a single ATM cell payload and sent immediately to avoid any delays. Subbiah further discloses in figures 1 and 2 and columns 7, lines 1-20, column 7, lines 46 to column 8, lines 55 and in claims 1-7 and respective portions of the specification of receiving a plurality of call requests for transferring a plurality of packets (each request having QoS requirements) and then following a successful negotiating of the cell rate, a

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packet is placed in the queue with the same QoS, if a QoS of a packet is stringent (no delay), the packet sent to the ATM cell is multiplexed with other packets and immediately transmitted to the remote peer entity via an ATM connection (thus disclosing the limitation of multiplexing the low bit rate connections into the ATM connection so that ATM cells are transmitted at scheduled negotiated transmission times).

In response the arguments that (1) the present invention keeps cell spacing constant by waiting until the schedule transmission time (AST) to multiplex/insert the packets into an ATM cell and transmit the ATM cell, and (2) Subbiah teaches ATM cell transmission is variably spaced according to the negotiated cell (i. e., QoS) and fill level of the ATM cell, the Examiner contends that theses feature are not recited in the rejected claims.

However, Applicant again respectfully submits that Subbiah does not teach or suggest that “the ATM cell transmission times are spaced according to a cell rate negotiated for the corresponding ATM connection”, as required by the independent claims. As discussed at column 3, lines 43-59 of Subbiah:

- if a user has requested a stringent delay (i.e. no delay) a packet belonging to this user will be transmitted immediately on the ATM connection,
- if a user has specified a delay e.g. 4 ms of packing time, then a packet belonging to this user will be retained in a ATM cell only 4 ms before being transmitted.

This means that for the ATM connection (on which the packets belonging to these users are multiplexed), the ATM cells will not be spaced according to a cell rate negotiated for this ATM connection. Instead, depending on the QoS requested by the users, sometimes

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there may be for example no delay, or sometimes there may be for example a delay of 4 ms, etc.

Furthermore, the AAL2 Negotiation Procedure (ANP) mentioned in Subbiah is a negotiation procedure at AAL2 level which takes into account the QoS requirements for each individual user, i.e., for each “low bit rate connection”. On the contrary, the negotiation referred to in the claims of the present application is a negotiation at ATM level, i.e., at the level of the ATM connection on which a plurality of low bit rate connections is multiplexed. Indeed, the negotiated cell rate mentioned in the claims is a cell rate negotiated for the corresponding ATM connection.

In view of the above, Applicant respectfully submits that claims 14-24 should be allowable because the cited references, alone or combined, do not teach or suggest all of the features of the claimed invention, and one of ordinary skill in the art would not have been motivated to combine and modify the cited references to produce the claimed invention.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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